

What is claimed is:

1. A quantum well infrared photodetector, comprising:
 - a plurality of periods, each period having a barrier layer and a well layer, each well layer of each period coupled between two barrier layers,
 - each well having a well bottom, and a well top, and each well supporting bound energy states therein,
 - materials and thicknesses of said periods being selected such that a bound energy state is substantially resonant with said well top.